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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,886	01/05/2007	Kerry Atley	0184-0164PUS1	5032
2292 7590 05/28/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
BROWN, DREW J				
ART UNIT		PAPER NUMBER		
3616				
NOTIFICATION DATE		DELIVERY MODE		
05/28/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/578,886

Applicant(s)

ATLEY, KERRY

Examiner

DREW J. BROWN

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/11/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date 2/9/07 & 5/11/06.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-5, 9, and 11 are objected to because of the following informalities:

In line 4 of claim 1, "at least one said pair" should be changed to --at least one of said pairs--.

In line 2 of claim 2, "between a said drive pair" should be changed to --between one of at least one said driven pair of wheels--.

In line 2 of claim 3, "said" should be deleted in the phrases "front said driven pair" and "rear said driven pair."

In lines 2 and 3 of claim 5, "said" should be deleted in the phrases "front said turntable," "front said wheel," "rear said turntable," and "rear said wheel."

In line 5 of claim 9, "sub-frame" should be changed to "sub-frame,".

In line 3 of claim 11, "about and" should be changed to --about an--.

In line 5 of claim 11, "at least one said" should be changed to --at least one of said--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis (U.S. Pat. No. 3,454,123).

Lewis discloses a vehicle having a main chassis (15) and a power source (40) for driving the vehicle, a drivable steer carriage (70) pivotally supporting the main chassis about an at least substantially upright pivotal axis (pivot column 90 in Figure 4), the carriage including a plurality of opposed pairs of carriage wheels (Figure 3), at least one of said pairs of carriage wheels being driven by a drive transmission including an input shaft (103) at least substantially aligned with

said upright pivotal axis such that the power source can transfer power through the input shaft to at least one carriage wheel pair (Figure 4). The carriage includes a front driven pair of carriage wheels and a rear driven pair of carriage wheels (Figures 3 and 4), wherein the power source (40) is supported on the main chassis for driving the at least one pair of carriage wheels through the input shaft (Figure 1). A differential drive (136) is centrally located on a wheel axle supporting the at least one driven pair of wheels, a central transfer unit (80) mounted to the sub-frame, the upright input shaft extending from the central transfer unit, and at least one output shaft extending from the central transfer unit (Figure 4), a wheel transfer unit (140) located adjacent the differential drive of the wheel axle, the wheel transfer unit being coupled to the sub-frame (Figure 4), and a drive shaft (150) interconnecting the central transfer unit with the wheel transfer unit (Figure 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 5, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Klun et al. (U.S. Pat. No. 6,299,187).

Lewis discloses the claimed invention as discussed above and that the steer carriage includes a sub-frame and a kingpin located between one of at least one said driven pair of wheel and the sub-frame, the pair of wheels being supported on a wheel axle (130) supported on the kingpin, thereby allowing pivoting of the wheel axle relative to the sub-frame. However, Lewis does not disclose a turntable that is located between one of at least one said driven pair of wheels and the subframe. Klun et al. does disclose the use of a front and rear turntable (5) allowing pivoting of the wheel axle relative to the sub-frame. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of

Lewis in view of the teachings of Klun et al. to use a turntable in order to distribute the weight of the main chassis and steer carriage across a larger area during pivoting.

With respect to claim 7, Lewis also discloses steering means (175) for controlling the rotation of the turntables relative to the subframe, the steering means rotating the front wheel axle in an equal and opposite rotational direction to the rear wheel axle (Figure 3).

Lewis also does not disclose that the main chassis includes a pair of said drivable steer carriages located adjacent opposing ends of the main chassis. Klun et al., however, does disclose the use of a pair (2a, 2b) of drivable steer carriages located adjacent opposing ends of the main chassis (Figure 4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pair of steer carriages, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Steiner (U.S. Pat. No. 3,591,203).

Lewis discloses the claimed invention as discussed above but does not disclose that there is a middle non-driven pair of carriage wheels located between the front and rear driven pairs of carriage wheels, the axis of rotation of the middle pair being located below the input shaft. Steiner, however, does disclose a middle non-driven pair of carriage wheels (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Lewis in view of the teachings of Steiner to have a middle pair of non-driven carriage wheels in order to decrease the stress on the chassis by distributing the load among three sets of wheels rather than two.

7. Claims 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Klun et al. as applied to claims 2, 3, 5, 7, and 10 as discussed above, and further in view of Steiner.

The combination of Lewis and Klun et al. discloses the claimed invention as discussed above but does not disclose that there is a middle non-driven pair of carriage wheels located between the front and rear driven pairs of carriage wheels, the axis of rotation of the middle pair being located below the input shaft. Steiner, however, does disclose a middle non-driven pair of

carriage wheels (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Lewis in view of the teachings of Steiner to have a middle pair of non-driven carriage wheels in order to decrease the stress on the chassis by distributing the load among three sets of wheels rather than two.

Conclusion

8. The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DREW J. BROWN whose telephone number is (571)272-1362. The examiner can normally be reached on Monday-Thursday from 8 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Drew J. Brown
Examiner
Art Unit 3616

db
5/20/09

/Paul N. Dickson/
Supervisory Patent Examiner, Art Unit 3616